Approved for use through 10/31/2002, OMB 0651-0032 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent And Trademark OFFICE; U.S. DEPARTMENT OF COMMERCE

U.S. Patent And Trademark OFFICE; U.S. DEPARTMENT OF COMMERCE

U.S. Patent And Trademark OFFI U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

## UTILITY PATENT APPLICATION **TRANSMITTAL**

type a plus sign (+) inside this box

DB000575~010 Attorney Docket No. Keeth First Inventor 256 MEG Dynamic Access Memory

(Only for new nonprovision	onal applications under 37 CFR 1.53(L	)) Ex	press Mail Label No.	EJ116538	197US		
APPLICATION ELEMENTS			ADDRESS TO: Assistant Commissioner for Patents Box Patent Application				
1. X Fee Transmittal (Submir an original and 2. Applicant Calims See 37 CFR 1.27 3. X Specification (preferred arrangeme - Descriptive titll - Cross Reference to so or a computer - Background of - Brief Summan - Brief Descripti - Detailed Description - Detai	(Total Pages 233 ]  In test forth below)  In test forth below  In	nnts.	7. CD-ROM or CD-Computer Progn 8. Nucleotide and/or Amin (if applicable, all neces. a. Computer Read b. Specification Sequent i. CD-RO ii. paper c. Statements ver  ACCOMPANYIN 9. Assignment Paper 10. (when there is a English Translat 11. English Translat 12. Information Dis Statement (IDS 13. X Preliminary Am 14. Return Receipt (Should be specified Copy (if foreign prioric	Washington, DC R in duplicate, It am (Appendix) o Acid Sequenc sary) dable Form (CR nce Listing on: M or CD-R (2 co rifying Identity of G APPLICA pers (cover shee Statement an assignee) tition Document ( closure )/PTO-1449 endment Postcard (MPE ciffically Itemized of Prionity Docum y is claimed) retification unde	c 20231 arge table or se Submission  F)  opies); or  f above copies  TION PARTS  at & document(s)) Power of Attorney (if applicable) Copies of IDS Citations  P 503)		
6. Application Data Sheet. See 37 CFR 1.76			or its equivalent.  17. X Other: Microfiche-Appendix				
18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:							
19. CORRESPONDENCE ADDRESS  Customer Number or Bar Code Label  Customer Number or Bar Code Label  Customer Number or Bar Code Label							
Name	Edward L. Pencoske						
	Thorp Reed & Armstrong, LLP						
Address City	One Oxford Centre, 14 Pittsburgh	th Fl Stat	1 24		1 15219		
Country	i	Telephor		Zip Code Fax	4123942555		
Name (Print/Type)	Edward L. Pencoske		Registration No. (Attorn		9,688		
Signature    Signature   Date   O8 March 2001							

the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, ary depending upon the needs of the individual case. Any comments on Washington, DC 20231.







The dating stamp of the USPTO on this card will be taken as an indication that the accompanying paper(s) was filed.

Applicant(s) Keeth
Title 256 MEG Dynamic Access Memory

Pages of Spec. 233 No. of Claim 80
Sheets of Drawings 367
Declaration X Verified Stmt.
Amt. of Check \$710 and \$1088
Atty's File No. DB000575-010

DOCKETED

ELP:sh

MAR OI

08 March 2001

\*PTO/SB/05

\*PTO/SB/17 (x2)

\*Preliminary Amendment

\*Microfiche Appendix \*Statement re

Deletion of Inventors

\*Change of Address

09/801628

MAR 2 6 2001



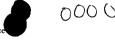
# UNITED STATES PATENT & TRADEMARK OFFICE Washington, D.C. 20231

1

REQUEST FOR PATENT FEE REFUND						
1 Date of Request: 2/16/03 2 Serial/Patent # 09/801,628					1,628	
3 Please refund the following fee(s):			APER JMBER	5 DATE FILED	6 AMOUNT	
Filing					\$	
	Amendment				\$	
Extension of Time					\$	
	Notice of Appeal/Appeal				\$	
X	Petition			6/6/01	\$ 130	
1	Issue				\$	
	Cert of Correction/Terminal Disc				\$	
	Maintenance				\$	
	Assignment				\$	
	Other				\$	
1			OTAL OF REF	\$ 130		
		8 7	8 TO BE REFUNDED BY:			
10 REASON:			Treasury Check			
	Overpayment	X	C	redit Dep	osit A/C #:	
	Duplicate Payment		, 2	200	1888	
X	No Fee Due (Explanation):					
7	Postrard proves allegently once	kd o	lrwa	S	were	
present an inthat filing. Rofind pet fee						
11 REFUND REQUESTED BY:						
TYPED/PRINTED NAME: E Shirel wells TITLE: Pet Athy						
SIGNATURE: & Share Willis PHONE: 308-62-12					. /	
OFFICE: OHU OF REMINES						
THIS SPACE RESERVED FOR FIMANCE USE ONLY:						
APPROVED: Olicea Kelly DATE: 2/19/03						

Instructions for completion of this form appear on the back. After completion, attach white and yellow copies to the official file and mail or hand-carry to:

Office of Finance Refund Branch Crystal Park One, Room 802B



is being deposited in the United States
to Postal Services as First Class Mail in an
environment of Patents and Trademarks
washington, D.C. 20231

2 Section \$

PATENT Attorney Docket No. DB000575-010

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Keeth, et. al.	)	
	)	Examiner: Not Yet Assigned
09/801,628	)	_
	)	Art Unit: 2818
March 8, 2001	)	
	09/801,628	09/801,628 )

**Entitled:** 256 MEG DYNAMIC RANDOM ACCESS MEMORY

# TRANSMITTAL LETTER FOR RESPONSE TO NOTICE TO FILE CORRECTED APPLICATION PAPERS - FILING DATE GRANTED

Assistant Commissioner for Patents ATTN: Box MISSING PARTS Washington, D.C. 20231

June 2001

RECEIVED

DEC 2 4 2002

OFFICE OF PETITIONS

Dear Sir:

This is in response to the Notice to File Corrected Application Papers - Filing Date Granted (hereinafter "the Notice") mailed on April 30, 2001 in the above-captioned application having a shortened two month statutory period of response.

Enclosed herewith are the following:

- 1. a Petition in Response to the Notice to File Corrected Application Papers having attached thereto:
  - Exhibit A a copy of the return postcard as evidence that 367 sheets of drawings were filed with the original divisional application; and
  - Exhibit B a copy of the Utility Patent Application Transmittal form as evidence that 367 sheets of drawings were filed with the original divisional application;
- 2. one copy each of Figures 40A and 81A that were filed as part of the 367 sheets of drawings;
- 3. a revised abstract, not exceeding 250 words in accordance with MPEP 608.01(b), in addition to a clean copy of the revised abstract;

- 4. a copy of the "Notice to File Corrected Application Papers" (Form PTO-1533); and
- 5. a check for \$130.00 to cover the petition fee under 37 C.F.R. 1.117(h), which will be refunded if the Petition in Response to the Notice to File Drawings is granted.

The Commissioner is hereby authorized to charge any underpayment or credit any overpayment to our Deposit Account No. 20-0888. A copy of this transmittal letter is enclosed.

A return postcard is also enclosed. Please date stamp and mail the postcard in order to acknowledge receipt of this correspondence.

Respectfully submitted,

Edward L. Pencoske Reg. No. 29,688

THORP, REED & ARMSTRONG, LLP One Oxford Centre

One Oxford Centre

301 Grant Street, 14<sup>th</sup> Floor Pittsburgh, PA 15219-1425

(412) 394-7789

Dated: June, 2001

Attorneys for Applicants





# MAY 04 2001

### United States Patent and Trademark Office

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231

NGTON, D.C. 20231 VOD.OTQRUWWW

APPLICATION NUMBER

FILING/RECEIPT DATE

FIRST NAMED APPLICANT

ATTORNEY DOCKET NUMBER

09/801,628

03/08/2001

Brent Keeth

DB000575-010

**CONFIRMATION NO. 1797** 

FORMALITIES LETTER

\*OC000000006022241\*

Edward L. Pencoske Thorp Reed & Armstrong, LLP One Oxford Centre, 14th Fl. 301 Grant St. Pittsburgh, PA 15219

05/07/E001 SHIKASS1 00000074 03001628 01 FC:105

Date Mailed: 04/30/2001

## NOTICE TO FILE CORRECTED APPLICATION PAPERS

9d justient dates 06/11/2001 3110091 06/07/2001 51100551 00000074 07801620 01 FC:105

## Filing Date Granted

This application has been accorded an Application Number and Filing Date. The application, however, is informal since it does not comply with the regulations for the reason(s) indicated below. Applicant is given **TWO MONTHS** from the date of this Notice within which to correct the informalities indicated below. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a)

The required item(s) identified below must be timely submitted to avoid abandonment:

- An Abstract not to exceed 150 words in length, commencing on a separate sheet (37 CFR 1.72(b)).
- The following item(s) appear to have been omitted from the application:
- Figure(s) 40A, 81A described in the specification.
- I. Should applicant contend that the above-noted omitted item(s) was in fact deposited in the U.S. Patent and Trademark Office (USPTO) with the nonprovisional application papers, a copy of this Notice and a petition (and \$130.00 petition fee (37 CFR 1.17(h))) with evidence of such deposit must be filed within TWO MONTHS of the date of this Notice. The petition fee will be refunded if is determined that the item(s) was received by the USPTO.
- II. Should applicant desire to supply the omitted item(s) and accept the date that such omitted item(s) was filed in the USPTO as the filing date of the above-identified application, a copy of this Notice, the omitted item(s) (with a supplemental oath or declaration in compliance with 37 CFR 1.63 and 1.64 referring to such items), and a petition under 37 CFR 1.182 (with the \$130.00 petition fee (37 CFR 1.17(h)) requesting the later filing date must be filed within TWO MONTHS of the date of this Notice.
- III. The failure to file a petition (and petition fee) under the above options (I) or (II) within TWO MONTHS of the date of this Notice (37 CFR 1.181(f)) will be treated as a constructive acceptance by the applicant of the application as deposited in the USPTO. THIS TWO MONTH PERIOD IS NOT EXTENDABLE UNDER 37 CFR 1.136(a) or (b). In the absence of a timely filed petition in reply to this Notice, the application will



maintain a filing date as of the date of deposit of the application papers in the USPTO, and original application papers (*i.e.*, the original disclosure of the invention) will include only those application papers present in the USPTO on the date of deposit.

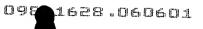
In the event that applicant elects not to take action pursuant to options (I) or (II) above (thereby constructively electing option (III)), amendment of the specification to renumber the pages consecutively and cancel incomplete sentences caused by any omitted page(s), and/or amendment of the specification to cancel all references to any omitted drawing(s), relabel the drawing figures to be numbered consecutively (if necessary), and correct the references in the specification to the drawing figures to correspond with any relabelled drawing figures, is required. Any drawing changes should be accompanied by a copy of the drawing figures showing the proposed changes in red ink. Such amendment and/or correction to the drawing figures, if necessary, should be by way of preliminary amendment submitted prior to the first Office action to avoid delays in the prosecution of the application.

A copy of this notice MUST be returned with the reply.

Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 1 - ATTORNEY/APPLICANT COPY





A 256 Meg dynamic random access memory is comprised of a plurality of cells organized into individual arrays, [with the arrays being] which are organized into 32 Meg array blocks, which are organized into 64 Meg quadrants. Sense amplifiers are positioned between adjacent rows in the individual arrays while; row decoders are positioned between adjacent columns in the individual arrays. In certain of the gap cells, multiplexers are provided to transfer signals from I/O lines to data lines. A datapath is provided which, in addition to the foregoing, includes array I/O blocks, responsive to the datalines from each quadrant to output data to a data read mux, data buffers, and data driver pads. The write data path includes a data in buffer and data write muxes for providing data to the array I/O blocks. A power bus is provided which minimizes routing of externally supplied voltages, completely rings each of the array blocks, and provides gridded power distribution within each of the array blocks. A plurality of voltage supplies provide the voltages needed in the array and in [the] peripheral circuits. The power supplies are organized to match their power output to the power demand and to maintain a desired ratio of power production capability and decoupling capacitance. A powerup sequence circuit is provided to control the powerup of the chip. Redundant rows and columns are provided as is the circuitry necessary to logically replace defective rows and columns with operational rows and columns. Circuitry is [also] provided on chip to support various types of test modes.